

each guide wheel being rotatably attached to a carriage assembly, wherein the carriage assembly is translationally coupled to each guide rail by the at least one guide wheel; and

the carriage assembly including at least one partially discoid massage member and means for driving the at least one guide wheel, wherein the carriage assembly translates axially along the at least one guide rail and the carriage assembly further includes a retainer coupled to the massaging member for constraining the massaging member to a sideward oscillating motion.

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48. A massaging apparatus comprising:

at least one guide rail affixed to a support structure, the guide rail including a raceway having a generally C-shaped cross section and a bearing surface;

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a carriage assembly including at least one rotatably attached guide wheel and at least one biasing member acting in opposition to the guide wheel, the guide wheel being adapted to travel within the raceway, thereby coupling the carriage assembly to the guide rail, and the biasing member being adapted to bear against the bearing surface, wherein force applied by the biasing member centers the guide wheel within the raceway;

the carriage assembly further including a massage member and means for driving the guide wheels, wherein the carriage assembly translates axially along the guide rails.

REMARKS

Claims 1-55 were filed with this application. Claims 15-36, 40-45 and 50-55 have been previously withdrawn from consideration. Claims 2, 15-36, 40-45 and 49-55 are cancelled. Applicant respectfully submits that, in view of the claim amendments and remarks provided, each of pending claims 1, 3-14, 37-39, 46 and 48 is in patentable form.

In response to the specific paragraphs of the Office action, applicant offers the following remarks.

i. Cancellation of claims 15-36, 40-45 and 49-55

Claims 15-36, 40-45 and 50-55 have been withdrawn from consideration and are cancelled as drawn to the non-elected species. In applicant's previous Response to

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Restriction Requirement, dated May 8, 2002, applicant erroneously included claim 49 in the group of claims drawn to the elected species. Claim 49 was not addressed by the Examiner in the subject Office action. Claim 49 is hereby cancelled.

ii. Objection to the specification

In the Office action, specifically in paragraph 2, the specification was objected to under 35 U.S.C. § 112, first paragraph. The Office action states that "there appears to be no support in the specification for the C-shaped guide rails claimed". This objection is obviated based on the reasons set forth below.

Applicant respectfully points out that page 18, lines 29-35 of the originally-filed specification discloses C-shaped rails, in compliance with 35 U.S.C. § 112, first paragraph. Such is also disclosed in application PCT/JP99/01340, incorporated into the specification by reference. Therefore, this objection to the specification should be withdrawn.

iii. Claim rejections under 35 U. S. C. § 112

In the Office action, specifically in paragraph 3, claims 1-14, 38, 39 and 46-48 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant respectfully submits that these claim rejections are overcome based on the claim amendments and the remarks set forth below.

With respect to claims 1 and 46, the Office action states that there is no clear antecedent basis for "the guide rails". Responsive to this rejection, each of claims 1 and 46 has been amended. As amended, each of claims 1 and 46 now particularly points out and distinctly claims the subject matter in compliance with 35 U.S.C. § 112, second paragraph. Therefore the rejection of claims 1 and 46 under 35 U.S.C. § 112, second paragraph, should be withdrawn.

Claims 3-4 depend, directly or indirectly, from amended claim 1. The Office action stated no specific grounds for rejection with respect to claims 3-4. Since claims 3-4 depend from claim 1 which now complies with the requirements of 35 U.S.C. § 112, second paragraph, the rejection of claims 3 and 4 under 35 U.S.C. § 112, second paragraph, should also be withdrawn.

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Although no specific grounds of rejection were provided for independent claim 5, independent claim 5 has been amended to excise the phrase "the guide wheels". Claim 5 now complies with the requirements of 35 U.S.C. § 112, second paragraph. The Office Action stated no specific grounds for rejection for claims 6-14. Claims 6-14 each depend, directly or indirectly, from amended independent claim 5 and therefore also comply with the requirements of 35 U.S.C. § 112, second paragraph. Therefore, the rejection of claims 5-14, under 35 U.S.C. § 112, second paragraph, should be withdrawn.

Claims 38 and 39 have been amended to correct a typographical error. The "bearing member" has been replaced by the "biasing member", such as recited in independent claim 37 from which claims 38 and 39 depend. Claims 38 and 39 therefore comply with the requirements of 35 U.S.C. § 112, second paragraph and the rejection of these claims under 35 U.S.C. § 112, second paragraph, should therefore be withdrawn.

With respect to claims 46-48, as rejected in paragraph 6 of the subject Office action, claim 46 recites that "the guide rail includes a generally C-shaped cross-section for receipt of at least one guide wheel". Independent claim 48 recites "the guide rail including a raceway having a generally C-shaped cross section". Applicant directs the Examiner to the formal drawings of Figures 1 and 2 (filed herewith) and also encloses a photographic presentation generally corresponding to Figure 1, for the Examiner's benefit. Rail 34 is shown to include first raceway 52 which has a generally v-shaped cross-section. Claim 1 therefore covers the embodiment in which rail 34 *includes* a v-shaped cross-section (i.e. at the first raceway 52). Similarly, claims 46 and 48 cover the embodiment disclosed on page 18 of the specification in which the guide rail includes a C-shaped cross-section.

Applicant respectfully submits that independent claims 46 and 48 are therefore each in compliance with 35 U.S.C. § 112, second paragraph, and the rejection of these claims under 35 U.S.C. § 112, second paragraph, should therefore be withdrawn. Claim 46 has been further amended to incorporate the features that previously appeared in claim 47, now cancelled. This amendment is discussed in section viii. below.

In the Office action, specifically in paragraph 7, claim 48 was further rejected under 35 U.S.C. § 112, second paragraph. The Office action states that "claim 48 appears to be inaccurate". More particularly, the Office action states that "there appears to be no disclosure

for the guide wheel and biasing wheels to travel in the same raceway. As understood they have separate and opposed raceways". Applicant confirms that the guide wheel and biasing wheel do in fact have separate and opposed raceways. Claims 48 does not recite the guide wheel and biasing wheel traveling in the same raceway. Rather, claim 48 recites

"the guide wheel being adapted to travel within the raceway", and

"the biasing member being adapted to bear against the bearing surface".

The guide rail includes a raceway and a bearing surface, but the raceway and bearing surface are distinct features (see Figure 2 and the photographic representation of Figure 1, included herein for the Examiner's benefit). Rail 34 includes first raceway 52 and second raceway 54. Guide wheel 60 travels within first raceway 52 and biasing wheel 72 travels within second raceway 54 and includes first section 74 that bears against a bearing surface, but does not travel within first raceway 52. Rather "the first section 74 of each biasing wheel 72 bears against the inner surface 86 of second lip 50" (specification, page 9, line 7, and shown in Figure 2). Figure 4 also illustrates biasing wheel 72 including first section 74.

Since the guide wheel travels within the raceway (first raceway) and the biasing member bears against the bearing surface, and since the bearing surface and raceway (first raceway) are not recited or disclosed as being one in the same, claim 48 does not disclose the guide wheel and biasing wheels traveling in the same raceway. Therefore, as correctly understood by the Examiner, they have separate and opposed raceways and claim 48 is therefore accurate. Hence, the rejection of claim 48 under 35 U.S.C. § 112, second paragraph, should be withdrawn.

iv. Rejection of claims 1, 6, 8-10 and 37 under 35 U. S. C. § 103(a)

In the Office action, particularly in paragraph 9, claims 1, 6, 8-10 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Goodman in view of Haley. Applicant respectfully submits that these claim rejections are overcome based on the claim amendments and remarks set forth below.

Independent claim 1 has been amended to incorporate the features that originally appeared in claim 2 -- "an annual groove is formed along the vertex of each guide wheel to accommodate an o-ring". Claim 2 has been cancelled. Neither Goodman nor Haley disclose

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or suggest an annular groove formed along the vertex of the guide wheel to accommodate an o-ring. Therefore, as amended, independent claim 1 includes features neither disclosed nor suggested in Goodman or Haley and the rejection of claim 1, under 35 U.S.C. § 103(a) should therefore be withdrawn.

Independent claim 37, as presently presented, recites the features of at least one guide wheel and at least one biasing member acting in opposition to the guide wheel, as well as the feature that "wherein the force applied by the biasing member centers the guide wheel within the first raceway". Neither of the references of Goodman nor Haley disclose or suggest this feature. Haley does not teach or suggest a biasing member. The guide wheels 72, 73 of Goodman are not even centered within corresponding guide rails 22 and 23, respectively. Figure 3 of Goodman clearly illustrates that each of guide wheels 72 and 73 are not centered within the corresponding rails in which they travel. Goodman does not and cannot teach or suggest a force applied by a biasing member or any other member for that matter, that centers the guide wheel within a raceway because Goodman's guide wheel is not centered within the raceway. Therefore, claim 37 includes features neither disclosed nor suggested by Goodman and Haley, taken alone or in combination. The rejection of claim 37 under 35 U.S.C. § 103(a) as being unpatentable over Goodman in view of Haley, should be withdrawn.

Claims 6 and 8-10 each depend, directly or indirectly, from independent claim 5. Independent claim 5, like independent claim 37, recites the feature that "wherein *force applied by the biasing member* centers the guide wheel within the first raceway" and is therefore distinguished from the references for reasons set forth above in the discussion of claim 37. Independent claim 5 has been amended to address formal matters, as discussed above. Since claims 6 and 8-10 depend from claim 5 and incorporate the distinguishing features of claim 5 therein, each of claims 6 and 8-10 are distinguished from the references of Goodman and Haley, taken alone or in combination. Therefore, the rejection of claims 6 and 8-10 under 35 U.S.C. § 103(a) as being unpatentable over Goodman in view of Haley, should be withdrawn.

v. Rejection of claims 2-4 under 35 U. S. C. § 103(a)

In the Office action, specifically in paragraph 10, claims 2-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the references as applied to claim 1 and further in view of Roberts. Applicant respectfully submits that these claim rejections are overcome based on the remarks set forth below.

Claim 2 has been cancelled and the features of claim 2 added to independent claim 1. In particular, amended independent claim 1 recites “an annular groove is formed along the vertex of each guide wheel to accommodate an o-ring,” and is distinguished from the Goodman and Haley references as discussed above. The Office action alleges that “Roberts teaches an o-ring 99 on the apex of wheel 95”. Applicant respectfully points out that the wheel 95 of Roberts, as shown in Figure 7 and as described in column 4, does not include a vertex. Roberts does not illustrate, disclose, or suggest a guide wheel having a vertex, much less an annular groove formed along the vertex to accommodate an o-ring. Roberts therefore does not make up for the deficiencies of Goodman and Haley. As amended, claim 1 therefore includes features that distinguish the applicant’s invention from the references of Goodman, Haley and Roberts taken alone or in combination. Claims 3 and 4 depend from amended independent claim 1 and are therefore also distinguished from the references for like reasons. As such, the rejection of claims 3 and 4, under 35 U.S.C. § 103(a) as being unpatentable over the references (Goodman in view of Haley) as applied to claim 1 above, and further in view of Roberts, should be withdrawn.

vi. Rejection of claims 11-13 and 38 under 35 U. S. C. § 103(a)

In the Office action, specifically in paragraph 11, claims 11-13 are 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Goodman in view of Bach et al. Applicant respectfully submits that these claim rejections are overcome based on the remarks set forth below.

Claims 11-13 depend, directly or indirectly, from amended independent claim 5 which is distinguished from Goodman for reasons set forth above. Claim 38 depends directly from claim 37 which is also distinguished from Goodman for reasons set forth above. The features that distinguish claim 5 from Goodman, in particular, the feature of “wherein the force applied

by the biasing member centers a guide wheel within the first raceway", is therefore incorporated within each of dependent claims 11-13. The reference of Bach et al. has apparently been relied upon for providing an o-ring fitted within an annular groove formed in the circumference of the smaller diameter section of a wheel. Bach does not provide a biasing wheel that provides a force which centers a guide wheel within a raceway. Bach, therefore, does not make up for the stated deficiencies of Goodman. Each of claims 11-13 is therefore distinguished from the references of Goodman and Bach, taken alone or in combination. Similarly, the features of claim 37 -- "wherein the force applied by the biasing member centers the guide wheel within the first raceway", are incorporated within independent claim 38 and distinguish claim 38 from the cited references of Goodman and Bach.

As such, the rejection of claims 11-13 and 38 under 35 U.S.C. § 103(a) as being unpatentable over Goodman in view of Bach et al., should be withdrawn.

vii. Rejection of claim 7 under 35 U. S. C. § 103(a)

In the Office action, specifically in paragraph 12, claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Goodman. Applicant respectfully submits that this claim rejection is overcome based on the remarks set forth below.

Claim 7 depends directly from amended independent claim 5 which is distinguished from Goodman for reasons set forth above. In particular, Goodman does not teach or suggest a biasing member that produces a force such that "wherein force applied by the biasing member centers the guide wheel within the first raceway". The Examiner suggests that "it would have been obvious to one of ordinary skill in the art to modify Goodman to provide a second raceway spaced from the first should the location of the second wheels 66, 67 be spaced from the rails 22, 23". Applicant respectfully submits that, regardless of any relocation of the second raceway, Goodman does not teach or suggest a biasing member adapted to bear against the second raceway and that provides a force to center the guide wheel within the first raceway, each feature as recited in independent claim 5.

Moreover, in view of the Examiner's suggestion that the bottom surface of rails 22, 23 is a second raceway of Goodman, applicant respectfully disagrees with the Examiner's further statement that it would be obvious to modify Goodman to provide a second raceway spaced

from the first since the first and second raceways disclosed in Goodman are opposed sides of the same member. Applicant respectfully submits that there is therefore no suggestion or motivation to modify Goodman to provide a completely distinct second raceway spaced from the first raceway, as recited in claim 5. Nevertheless, even if one of ordinary skill in the art and in the possession of Goodman, did disclose a new structural feature -- a second raceway, there is no teaching or suggestion in Goodman that suggests providing a biasing member and using it to *center* the guide wheel within the first raceway. Claim 7 therefore includes features that distinguish applicant's invention from Goodman.

The rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Goodman, should therefore be withdrawn.

viii. Rejection of claims 5 and 46-48 under 35 U. S. C. § 102(b)

In the Office action, specifically in paragraphs 14 and 15, claims 5 and 46-48 were rejected under 35 U.S.C. § 102(b) as being anticipated by Goodman. Applicant respectfully submits that these claim rejections are overcome based on the remarks set forth below.

Independent claim 5, which has been amended to address formal matters, recites the features of:

"the guide rail including a first raceway and a second opposing raceway",

"the guide wheel being adapted to travel within the first raceway", and

"the biasing member being adapted to bear against the second raceway".

As discussed above, claim 5 also recites the feature that "the force applied by the biasing member centers a guide wheel within the first raceway". The members of Goodman that the Examiner equates to biasing wheels -- wheels 66 and 67, are alleged by the Examiner to act in opposition to the guide wheels to maintain the guide wheels within the first raceway. Because of the shape of the guide rails, the corresponding shape of the wheels, and the biasing mechanism of the present invention, the present invention, as recited in claim 5, goes a step further and provides a force by a biasing member that centers the guide wheel within the first raceway. Goodman does not teach or suggest this centering feature. An advantage of the present invention is that the centering feature provides stable and smooth motion of the carriage assembly as lateral motion of the guide wheels is suppressed.

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In contrast, an Examination of Figure 3 of Goodman reveals that rails 22 and 23 themselves, do not have a centering feature, the corresponding wheels 72 and 73 are not centered, and wheels 66 and 67 (alleged by the Examiner to be biasing wheels) do not center the guide wheel within the first raceway as recited in claim 5. Applicant respectfully submits that wheels 66 and 67 cannot center wheels 72 and 73 in the illustrated rails provided by Goodman. Claim 5 therefore includes features neither disclosed or suggested by Goodman and the rejection of amended independent claim 5 under 35 U.S.C. § 102(b) as being clearly anticipated by Goodman, should be withdrawn.

Independent claim 48, as presently presented, also recites the feature that "wherein force applied by the biasing member centers the guide wheel within the raceway", and is similarly distinguished from Goodman. Therefore, the rejection of claim 48 under 35 U.S.C. § 102(b) as being anticipated by Goodman, should be withdrawn

Claim 46 has been amended to incorporate the features of previously pending claim 47, now cancelled. As amended, independent claim 46 recites the feature that

"the carriage assembly further includes a retainer coupled to the massaging member for constraining the massaging member to a sideward oscillating motion".

Goodman does not disclose or suggest oscillating motion, much less a retainer to provide a sideward oscillating motion. Goodman, in fact teaches away from sideward oscillating motion. In column 2, lines 7-14, Goodman states that vertical vibrations, movement generally toward and away from the surface of the back, are useful and concludes "it would be desirable to eliminate the horizontal oscillations" (column 2, lines 12-14). Goodman therefore teaches away from sideward oscillating motion. Amended claim 46 is therefore distinguished from the cited reference of Goodman.

For reasons set forth above, claim 46 is distinguished from Goodman and the rejection of claim 46 under 35 U.S.C. § 102(b) as being anticipated by Goodman, should be withdrawn.

ix. Rejection of claims 46 and 47 under 35 U. S. C. § 102(b)

In the Office action, specifically in paragraph 16, claims 46 and 47 were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Ookawa et al. Applicant respectfully

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submits that these claim rejections are overcome based on the remarks set forth below. As above, claim 47 has been cancelled and amended claim 46 now includes the sideward oscillating motion feature that originally appeared in claim 47.

Ookawa et al. is apparently cited for disclosing a c-shaped rail 14. However, Ookawa et al. does not disclose or suggest a sideward oscillating motion, much less a retainer coupled to the massaging member for constraining the massaging member to produce a sideward oscillating motion. Claim 46 therefore includes features not disclosed in Ookawa et al. and therefore the rejection of amended claim 46 under 35 U.S.C. § 102(b) as being clearly anticipated by Ookawa et al. should be withdrawn.

CONCLUSION

Based on the foregoing, each of pending claims 1, 3-14, 37-39, 46 and 48 is in patentable form and the application is therefore in condition for allowance, which action is respectfully and expeditiously requested by the undersigned.

Attached hereto is a marked-up version of the changes made to the above-identified application by the current amendment. The attached page is captioned "Version with markings to show changes made."

Respectfully submitted,

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Attachment: Photographic Representation of Figure 1

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend claims 1, 5, 38, 39 and 46 as indicated.

In the Claims:

1. (Amended) A massaging apparatus comprising:
at least one guide rail affixed to a support structure, wherein the guide rail includes a generally v-shaped cross-section for receipt of at least one guide wheel;
each [the] guide wheel[s] including a generally diamond shaped cross-section adapted for rolling within the respective guide rail[s] and being rotatably attached to a carriage assembly, wherein the carriage assembly is translationally coupled to each [the] guide rail[s] by the at least one guide wheel[s]; and
the carriage assembly including a massage member and means for driving the at least one guide wheel[s], wherein the carriage assembly translates axially along the at least one guide rail[s] and an annular groove is formed along the vertex of each guide wheel to accommodate an o-ring.

5. (Amended) A massaging apparatus comprising:
at least one guide rail affixed to a support structure, the guide rail including a first raceway and a second opposing raceway;
a carriage assembly including at least one rotatably attached guide wheel and at least one biasing member acting in opposition to the guide wheel, the guide wheel being adapted to travel within the first raceway, thereby coupling the carriage assembly to the guide rail, and the biasing member being adapted to bear against the second raceway, wherein force applied by the biasing member centers the guide wheel within the first raceway;
the carriage assembly further including a massage member and means for driving the at least one guide wheel[s], wherein the carriage assembly translates axially along the at least one guide rail[s].

38. (Amended) The massage apparatus of claim 37, wherein the [bearing] biasing member is a biasing wheel comprising a first large diameter section and a second smaller diameter

section, the second smaller diameter section extending concentrically from the first large diameter section.

39. (Amended) The massage apparatus of claim 37, wherein the [bearing] biasing member is spring loaded in a direction away from the wheel, and wherein the bearing member is self adjusting and biased away from the wheel to maintain the carriage within the rail, alleviating any slack caused by wear to the wheel and biasing member.

46. (Amended) A massaging apparatus comprising:

at least one guide rail affixed to a support structure, wherein the guide rail includes a generally C-shaped cross-section for receipt of at least one guide wheel;

each [the] guide wheel[s] being rotatably attached to a carriage assembly, wherein the carriage assembly is translationally coupled to each [the] guide rail[s] by the at least one guide wheel[s]; and

the carriage assembly including at least one partially discoid massage member and means for driving the at least one guide wheel[s], wherein the carriage assembly translates axially along the at least one guide rail[s] and the carriage assembly further includes a retainer coupled to the massaging member for constraining the massaging member to a sideward oscillating motion.